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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,612	07/27/2001	Dhirubhai Patel	GCD 00.30	8713

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07/07/2003

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EXAMINER

MACCHIAROLO, PETER J

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/916,612

Applicant(s)

PATEL, DHIRUBHAI

Examiner

Peter J Macchiarolo

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 02 May 2003 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

1. The reply filed on May 2, 2003 consists of changes to the Drawings and to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the First Office Action. However, claims 1, 3-10, and 12 are not allowable as explained below.

### *Drawings*

2. The corrected or substitute drawings were received on May 2, 2003. These drawings are **not accepted**. Proposed figure 4 is helpful in realizing the overall getter structure. However, the original figures in combination with the new proposed figure 4 still fails to show how the spring fits into the getter well. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Podgorski (USPN 4,740,985; “Podgorski”).

Art Unit: 2875

4. In regards to claim 1, Podgorski discloses an electrode and getter structure for a gas discharge device comprising a metalization layer (216) formed on the surface of the frame (10), the metalization layer including an electrode<sup>1</sup> that is adjacent to the electrode bore (21). Podgorski further discloses that a getter well (210) is sealed to the metalization layer around the electrode bore, and a getter (250) is mounted in the getter well and spaced apart from the frame.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Podgorski.

6. In regards to claim 7, Podgorski discloses an electrode and getter structure for a gas discharge device comprising a metalization layer (216) formed on the surface of the frame (10), the metalization layer including an electrode<sup>2</sup> that is adjacent to the electrode bore (21). Podgorski further discloses that a getter well (210) is sealed to the metalization layer around the electrode bore, and a getter (250) is mounted in the getter well and spaced apart from the frame.

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<sup>1</sup> Podgorski, column 4, lines 3-7.

<sup>2</sup> Podgorski, column 4, lines 3-7.

Art Unit: 2875

7. While Podgorski is silent to a method of manufacturing such a device, the steps of forming, mounting and sealing are very broad. Hence, the structure disclosed by Podgorski meets Applicant's recited method step limitations.

8. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, with the method of claim 7, since the method steps are obvious in light of the resultant structure.

9. In regards to claims 3 and 9, Podgorski discloses all of the recited limitations of claims 1 and 7 (above).

10. Podgorski is silent to the metalization layer including an electrical contact arranged so that an electric signal may be applied to the electrode, or a method of forming the electrical contact.

11. However, Podgorski discloses that the metalization layer may serve as one of the electrodes which establishes the ionization of the lasing gas<sup>3</sup>, which indicates that this configuration would require an electrical contact arranged so that an electric signal may be applied to the electrode.

12. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, including an electrical contact arranged so that an electric signal may be applied to the electrode, since an electrical contact, such as Applicant's, must be arranged on Podgorski's metalization layer so that it may serve as one of the electrodes.

Art Unit: 2875

13. Furthermore, while Podgorski is silent to a method of manufacturing such a device, the step of forming the metalization layer is very broad. Hence, the structure disclosed by Podgorski meets Applicant's recited method step limitations.

14. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, with the method of claim 9, since the method steps are obvious in light of the resultant structure.

15. In regards to claims 4 and 10, Podgorski discloses all of the recited limitations of claims 1 and 7 (above).

16. Podgorski teaches the getter well is a hollow cylinder having a closed end and an open end mounted to the metalization layer.

17. Podgorski is silent to the getter well's exact composition and material or to the method of manufacturing such a device.

18. However, constructing the getter well from glass would have been obvious, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

19. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the getter well out of glass, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

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<sup>3</sup> Podgorski, column 4, lines 3-7.

Art Unit: 2875

20. Furthermore, while Podgorski is silent to a method of manufacturing such a device, the step of forming the getter well is very broad. Hence, the structure disclosed by Podgorski meets Applicant's recited method step limitations.

21. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, with the method of claim 10, since the method steps are obvious in light of the resultant structure.

22. In regards to claim 8, Podgorski discloses all the recited limitations of claim 7 (above).

23. Podgorski further discloses that the metalization layer extends around the electrode bore.

24. While Podgorski is silent to a method of manufacturing such a device, the step of forming the metalization layer is very broad. Hence, the structure disclosed by Podgorski meets Applicant's recited method step limitations.

25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, with the method of claim 8, since the method steps are obvious in light of the resultant structure.

26. Claims 5, 6, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Podgorski in view of Koper et al (USPN 5,386,432; "Koper").

27. In regards to claim 5, Podgorski discloses all of the recited limitations of claim 1 (above).

28. Podgorski further teaches in figure 2, the getter (250) is suspended in the cavity by feedthrough electrodes (241, 243).

29. Podgorski is silent to the getter well containing a spring retained in the getter well being attached to the getter and aligned with the electrode bore, the spring being arranged to support the getter.

30. However, Koper discloses in figures 1-3, that a spring (28) supports and is attached to the getter (20) and aligned with the electrode bore (12), and this configuration prevents the getter from tearing loose or to shake particles from the sintered getter material, which may degrade the performance of the ring laser gyroscope<sup>4</sup>.

31. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, including the spring being arranged to support the getter, since Koper teaches that a spring which supports the getter can improve the performance of the ring laser gyroscope.

32. In regards to claims 6 and 12, Podgorski discloses an electrode and getter structure for a gas discharge device comprising a metalization layer (216) formed on the surface of the frame (10), the metalization layer including a ring (216) that extends around the electrode bore (21) and is spaced apart therefrom, an electrode<sup>5</sup> formed in the metalization layer that is adjacent to the electrode bore (21). Podgorski further discloses that a getter well (210) is sealed to the metalization layer around the electrode bore, and a getter (250) is mounted in the getter well and spaced apart from the frame and aligned with the electrode bore.

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<sup>4</sup> Koper, column 2, lines 43-45.

<sup>5</sup> Podgorski, column 4, lines 3-7.



Art Unit: 2875

33. Podgorski is silent to the metalization layer having an electrode extending inward in the ring, a spring mounted in the getter well, or the metalization layer includes an electrical contact which is arranged to extend away from the spring, or a method of manufacturing such a device.

34. However, Podgorski discloses that the metalization layer may serve as one of the electrodes which establishes the ionization of the lasing gas<sup>6</sup>, which indicates that this configuration would require an electrical contact arranged so that an electric signal may be applied to the electrode, and the electrode extending inward an obvious matter of design choice, since this configuration would improve the reliability of the device.

35. Further, Koper discloses in figures 1-3, that a spring (28) supports and is attached to the getter (20) and aligned with the electrode bore (12), and this configuration prevents the getter from tearing loose or to shake particles from the sintered getter material, which may degrade the performance of the ring laser gyroscope<sup>7</sup>.

36. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, including an electrode extending inward in the ring, a spring mounted in the getter well, and the metalization layer including an electrical contact is arranged to extend away from the spring, since Koper teaches that a spring which supports the getter can improve the performance of the ring laser gyroscope, and the electrical contacts for the metalization layer are matters of design choice.

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<sup>6</sup> Podgorski, column 4, lines 3-7.

<sup>7</sup> Koper, column 2, lines 43-45.

Art Unit: 2875

37. Furthermore, while Podgorski is silent to a method of manufacturing such a device, the steps of forming, providing, sealing, and mounting are very broad. Hence, the structure disclosed by Podgorski meets Applicant's recited method step limitations.

38. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the electrode and getter structure of Podgorski, with the method of claim 12, since the method steps are obvious in light of the resultant structure.

### ***Response to Arguments***

39. Applicant's arguments with respect to claims 1, 6, 7, and 12, have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

40. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

41. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2875

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

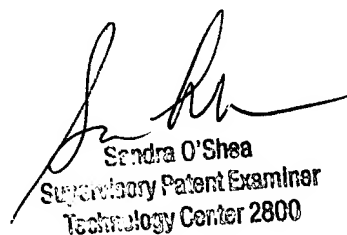
42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (703) 305-7198.

The examiner can normally be reached on 7:30 - 4:30, M-F.

43. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

44. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

pjm  
June 23, 2003



Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800